

Mineral Industry Surveys

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SULFUR IN FEBRUARY 2005

During the month, production of recovered elemental sulfur was 691,000 metric tons, according to the U.S. Geological Survey. February production was 7% lower than that of January 2005 and slightly higher than that of February 2004. Shipments were 7% lower than those of January 2005. Producers' ending stocks for February 2005 were 189,000 tons.

Decreases in production are typical early in the year as the result of maintenance activities at oil refineries. February production is usually lower than that of January because it is a short month.

Import and export data for February 2005 were not available at the time of publication and will be published in the Sulfur in

March 2005 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for January 2005 were estimated to be 234,000 tons; exports were 22,000 tons. Imports of sulfuric acid for January 2005 were 248,000 tons; exports were 13,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information and data from personal communications with industry experts.

 $\label{eq:table 1} \textbf{TABLE 1} \\ \textbf{SALIENT SULFUR STATISTICS}^1$

(Thousand metric tons)

		Production		Shipments,	Ending
Period	Petroleum ²	Natural gas	Total	all sources	stocks ³
2004:					
January-December	7,270	1,990	9,260	9,300	XX
January-February	1,110	320	1,430	1,460	XX
February	526	155	680	690	182
March	597	176	773	782	177
April	612	161	773	772	178
May	614	170	784	780	185
June	608	164	772	771	191
July	640	173	813	804	201
August	644	172	815	830	189
September	589	155	744	749	185
October	591	163	754	758	183
November	612	167	779	761	200
December	652	167	819	835	185
2005:	= -				
January	572	169 ^r	741 ^r	741 ^r	179 ^r
February ^p	531	160	691	686	189
Total	1,100	329	1,430	1,430	XX

^pPreliminary. ^rRevised. XX Not applicable.

 $\label{eq:table 2} \text{U.S. IMPORTS OF SULFUR}^1$

(Thousand metric tons and thousand dollars)

	Canac	la	Mexi	со	Total, all co	untries ²
Period	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2003:	_					
January-December	2,080	32,000	535	26,500	2,810	69,100
2004:						
January	180	1,720	50	2,400	267	5,850
February	160	3,130	35	3,050	225	7,930
March	180	3,660	25	2,570	225	7,210
April	180	3,060	54	2,550	279	8,040
May	180	2,830	57	2,680	265	6,880
June	180	2,560	49	2,440	247	5,980
July	160	2,790	54	2,550	251	7,150
August	160	2,050	35	1,780	221	5,290
September	160	2,460	49	2,620	240	6,850
October	160	1,740	51	2,170	220	4,370
November	150	2,010	31	1,240	186	5,700
December	160	2,660	55	2,200	226	5,400
Total	2,010	28,600	545	28,300	2,850	76,600
2005:	_					
January	160	1,610	31	1,070	234	4,730

eEstimated

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and PentaSul North America Sulphur Service.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

³Subject to inventory adjustments.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

TABLE 3 $\mbox{U.S. IMPORTS OF SULFURIC ACID}^1$

(Thousand metric tons and thousand dollars)

		Canada			Europe		Tota	al, all countries	s^2
		Sulfur			Sulfur			Sulfur	
Period	Quantity	content	Value ³	Quantity	content	Value ³	Quantity	content	Value ³
2003:									
January-December	387	126	16,200	266	86	5,870	905	298	28,800
2004:									
January	97	32	3,930				114	37	4,610
February	179	58	7,480	21	7	488	204	69	8,450
March		54	6,760	6	2	163	176	58	7,280
April	203	66	7,710	14	5	344	221	72	8,410
May	190	62	7,230	22	7	555	222	72	8,120
June	166	54	6,350	11	3	247	192	63	7,860
July	160	52	5,660	10	3	357	172	56	6,230
August	133	43	4,920	33	11	937	194	63	6,250
September	150	49	5,080	29	9	1,090	206	67	6,480
October	176	57	6,450	19	6	946	215	70	7,480
November	160	52	5,930	11	3	289	218	71	7,500
December	140	46	4,970	30	10	655	251	82	7,610
Total	1,920	625	72,500	206	66	6,670	2,390	780	86,300
2005:	_								
January:	173	56	5,990	30	10	840	248	81	9,490

⁻⁻ Zero.

Source: U.S. Census Bureau.

 $\label{eq:table 4} \textbf{U.S. EXPORTS OF SULFUR AND SULFURIC ACID}^1$

(Thousand metric tons and thousand dollars)

			(Sulfuric acid		
	Sulf	Sulfur		Sulfur	r	
Period	Quantity	Value ²	Quantity	content	Value ²	
2003:						
January-December	742	46,100	207	68	18,800	
2004:						
January	18	1,740	10	3	1,120	
February	6	1,530	13	4	1,520	
March	102 ^r	7,080 ^r	14	5	3,190	
April	128 ^r	7,710 ^r	11	4	1,380	
May	87 ^r	5,190 ^r	10	3	2,370	
June	36	2,000 r	26	8	1,610	
July		1,720 ^r	13	4	1,280	
August	157 ^r	11,500 ^r	40	13	3,210	
September	107 ^r	6,590 ^r	11	4	1,090	
October	127 ^r	7,250 ^r	23	7	1,850	
November	31	2,280 r	20	7	1,590	
December	130 ^r	8,740 ^r	13	4	1,120	
Total	949 ^r	63,300 ^r	204	66	21,300	
2005:	_					
January		1,740	13	4	1,590	

r Revised

Source: U.S. Census Bureau.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

 $\label{eq:table 5} \text{U.S. CONSUMPTION OF SULFUR}^1$

(Thousand metric tons)

	Domestic		
Period	sources ²	Imports ^e	Consumption
2003:			
January-December	8,170	2,810	11,000
2004:			
January	751	267	1,020
February	684	225	909
March	680 ^r	225	905 ^r
April	644 ^r	279	923 ^r
May	693 ^r	265	958 ^r
June	735	247	982
July	785 ^r	251	1,040 ^r
August	673 ^r	221	894 ^r
September	642 ^r	240	882 ^r
October	631 ^r	220	851 ^r
November	730	186	916
December	705 ^r	226	931 ^r
Total	8,350 ^r	2,850	11,200 ^r
2005:	_		
January		234	953

^eEstimated. ^rRevised.

TABLE 6 RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES, BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT 1

(Thousand metric tons)

	February	2005 ^p	January	2005	Total 2005 ²		Year to date 2004 ²	
District and source	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	21	21	23	21	44	43	38 ^r	37 ^r
Natural gas	1	2	2	2	4	4	4	4
Total	22	22	19	19	47	46	42 ^r	41 ^r
PAD 2:								
Petroleum and coke	76	76	86 ^r	87 ^r	163	163	162 ^r	162 ^r
Natural gas	3	4	3	3	7	7	7	8
Total	79	80	90 ^r	90 ^r	169	170	170 ^r	170 ^r
PAD 3:3								
Petroleum and coke	324	319	345 ^r	343 ^r	670	662	729 ^r	747 ^r
Natural gas	41	43	44	48 ^r	85	91	90 ^r	93 ^r
Total	366	362	389 r	391 ^r	754	753	819 ^r	840 r
PAD 4 and 5: ⁴								
Petroleum and coke	110	105	118 ^r	115	228	220	201 ^r	205 ^r
Natural gas	115	116	120 ^r	122 ^r	234	238	219 ^r	222 ^r
California	84	78	89	87 ^r	174	165	154 ^r	158 ^r
Total	225	222	237 ^r	236 ^r	462	458	420 ^r	427 ^r
Grand total	691	686	741 ^r	741 ^r	1,430	1,430	1,450	1,480 ^r

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

 $^{^{1}\}mbox{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions to prior months.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

$\label{table 7} {\sf COMPARATIVE\ SULFUR\ AND\ SULFURIC\ ACID\ STATISTICS}^1}$

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

		2005		2004
	February	January	Total	total
Production	9.01 ^p	8.72 ^r	8.87 ^r	9.25
Shipments	8.94 ^p	8.72 ^r	8.83 ^r	9.30
Exports of sulfur	NA	0.26	0.26	$0.95^{\text{ r}}$
Imports of sulfur:	_			
Canada	NA	1.88 ^e	1.88 ^e	2.01
Mexico	NA	0.37	0.37	0.54
Total ²	NA	2.76 ^e	2.76 ^e	2.85 ^e
Export of H ₂ SO ₄	NA	0.15	0.15	0.21
Import of H ₂ SO ₄ :	_			
Canada	NA	2.04	2.04	1.92
Europe	NA	0.35	0.35	0.21
Total ²	NA	2.92	2.92	2.39
Consumption: ³				
Domestic sources	NA	8.47	8.47	8.35 ^r
Imports	NA	2.76 ^e	2.76 ^e	2.85 ^e
Total	NA	11.22	11.22	11.21 ^r
Sulfur export values ⁴	NA	\$79	\$79	\$67 ^r
Sulfur import values: ⁴	_			
Canada	NA	\$10	\$10	\$14
Mexico	NA	\$34	\$34	\$52
Average	NA	\$20	\$20	\$27
H ₂ SO ₄ export values ⁴	NA	\$123	\$123	\$105
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$35	\$35	\$38
Europe	NA	\$28	\$28	\$32
Average	NA	\$38	\$38	\$36

^eEstimated. ^pPreliminary. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because February trade data were not available, February consumption was not determined.

⁴Average value per ton for most recent data available.